

Amendment to the Claims:

The claims under examination in this application, including their current status and changes made in this paper, are respectfully presented.

1 (currently amended). In a direct sequence spread spectrum (DSSS) communications receiver, a system for demodulating information channels in a plurality of sample streams, the system comprising:

a controller having an output to select a sample stream; and

a plurality of demodulating fingers, each demodulating finger having a sample stream inputs to accept the plurality of sample streams, a selection input connected to the controller output to accept sample stream selection commands, and each demodulating finger demodulating information channels to provide soft symbols from the selected sample stream at a soft symbol output.

2 (currently amended). The system of claim 1 wherein each demodulating finger includes:

a multiplexer having a first plurality of inputs connected to the demodulating finger sample stream input to accept the plurality of sample streams, a second select input connected to the demodulating finger selection input to accept the sample stream selection commands, and an output to provide the selected sample stream.

3 (currently amended). The system of claim 2 wherein each demodulating finger further includes:

a plurality of finger channels, wherein each finger channel includes a sample stream input connected coupled to the multiplexer output to accept the selected sample stream, a code input to accept an uncovering code, each finger channel demodulating an information channel in the selected sample stream in response to the

accepted uncovering code to provide soft symbols at a soft symbol output connected to the demodulating finger soft symbol output.

4 (original). The system of claim 3 further comprising:

a code generator having an output to provide uncovering codes; and
wherein each demodulating finger further includes a code input connected to the code generator output to accept uncovering codes; and

wherein the code input of each finger channel is connected to the demodulating finger code input to accept uncovering codes.

5 (currently amended). The system of claim 1 in which the plurality of sample streams are converted from a plurality of accepted carriers; and

wherein each demodulating finger accepts the plurality of sample streams converted from the plurality of carriers.

6 (original). The system of claim 5 wherein the controller selects a sample stream for each of the demodulating fingers from the plurality of sample streams.

7 (original). The system of claim 6 in which three sample streams are respectively converted from a first, second, and third carrier;

wherein the controller assigns a first sample stream, from the first carrier, to a first demodulating finger from the plurality of demodulating fingers;

wherein the controller assigns a second sample stream, from the second carrier, to a second demodulating finger from the plurality of demodulating fingers; and

wherein the controller assigns a third sample stream, from the third carrier, to a third demodulating finger from the plurality of demodulating fingers.

8 (original). The system of claim 6 in which three sample streams are respectively converted from a first, second, and third carrier;

wherein the controller assigns a first sample stream, from the first carrier, to a first demodulating finger from the plurality of demodulating fingers; and

wherein the controller assigns the first sample stream, from the first carrier, to a second demodulating finger from the plurality of demodulating fingers.

9 (currently amended). The system of claim 8 wherein the controller assigns the first sample stream, from the first carrier, to a third demodulating finger from the plurality of demodulating fingers.

10 (previously presented). The system of claim 1 in which a first carrier is received with at least a first and second multipath delay, and in which the first carrier first and second multipath delays are converted into a first sample stream with at least a first and second delay;

wherein the controller assigns the first sample stream first delay to a first demodulating finger from the plurality of demodulating fingers; and

wherein the controller assigns the first sample stream second delay to a second demodulating finger from the plurality of demodulating fingers.

11 (currently amended). In a direct sequence spread spectrum (DSSS) communications receiver, a demodulating finger for demodulating information channels in a plurality of sample streams, the demodulating finger comprising:

a sample stream inputs to accept the plurality of sample streams;

a selection input to accept sample stream selection commands; and

a soft symbol output to provide soft symbols from demodulated information channels in the a selected sample stream.

12 (currently amended). The demodulating finger of claim 11 further comprising:

a multiplexer having a first input connected to the demodulating finger sample stream input to accept the plurality of sample streams, a second input connected to the demodulating finger selection input to accept the sample stream selection commands, and an output to provide the selected sample stream.

13 (currently amended). The demodulating finger of claim 12 further comprising:

a plurality of finger channels, wherein each finger channel includes a sample stream input ~~connected~~ coupled to the multiplexer output to accept the selected sample stream, a code input to accept an uncovering code, each finger channel demodulating an information channel in the selected sample stream in response to the accepted uncovering code to provide soft symbols at a soft symbol output connected to the demodulating finger soft symbol output.

14 (original). The demodulating finger of claim 13 wherein each demodulating finger further includes:

a code input to accept a plurality of uncovering codes; and
wherein the code input of each finger channel is connected to the demodulating finger code input to accept an uncovering code.

15 (original). The demodulating finger of claim 11 in which the plurality of sample streams correspond to a plurality of converted carriers; and

wherein the demodulating finger accepts the plurality of sample streams converted from the plurality of carriers.

16 (currently amended). The demodulating finger of claim 15 in which a first, second, and third sample stream are respectively converted from a first, second, and third carrier;

wherein the demodulating finger accepts the sample stream selection commands for the selection of a sample stream from the group including first, second, and third sample streams.

17 (canceled).

18 (previously presented). The method of claim 23 wherein accepting the plurality of sample streams includes each sample stream having an information channel; and

wherein providing soft symbols includes providing soft symbols from an uncovered information channel in the selected sample stream.

19 (original). The method of claim 18 further comprising:

uncovering the information channel with a Walsh code.

20 (original). The method of claim 19 further comprising:

preceding the uncovering of the information channel with the Walsh code accepting the Walsh code.

21 (original). The method of claim 18 wherein accepting the plurality of sample streams includes each sample stream having a plurality of information channels; and

wherein providing the soft symbols includes providing soft symbols from a plurality of demodulated information channels in the selected sample stream.

22 (previously presented). The method of claim 23 wherein selecting a sample stream includes selecting each sample stream from the plurality of sample streams; and wherein providing soft symbols from the selected sample stream includes providing soft symbols from each of the plurality of sample streams.

23 (currently amended). A method for demodulating information channels in a plurality of sample streams at a direct sequence spread spectrum (DSSS) communications receiver, comprising the steps of:

accepting a plurality of sample streams at a demodulating finger;
selecting a sample stream from the plurality of sample streams with the demodulating finger responsive to sample stream selection commands; and
operating the demodulating finger to provide the soft symbols from the selected sample stream.

24 (currently amended). The method of claim 23, further comprising the step of:
operating a controller to communicate the sample stream selection commands to the demodulating finger.

25 (currently amended). The method of claim 24 wherein the accepting step comprises accepting the plurality of sample streams at each of a plurality of demodulating fingers;

wherein the step of operating the controller comprises communicating the sample stream selection commands to each of the plurality of demodulating fingers, so that each demodulating finger selects a the sample stream; and

wherein the providing operating step comprises operating each demodulating finger to provide the soft symbols from the selected sample stream.

26 (currently amended). The method of claim 25 further comprising the steps of:
receiving a plurality of carriers; and

converting each carrier from the plurality of carriers to a corresponding one of the sample stream in a plurality of sample streams.

27 (currently amended). The method of claim 25 26 wherein the step of receiving a plurality of carriers includes receiving a first, second, and third carrier;

wherein converting each carrier from the plurality of carriers includes converting the first carrier to a first sample stream, the second carrier to a second sample stream, and a third carrier to a third sample stream; and

wherein the step of operating the controller comprises communicating the sample stream selection commands so that a first demodulating finger selects the first sample stream, a second demodulating finger selects the second sample stream, and a third demodulating finger selects the third sample stream.

28 (currently amended). The method of claim 25 wherein the accepting step comprises receiving a plurality of carriers comprising a first, second, and third carrier; further comprising:

converting each carrier from the plurality of carriers includes converting the first carrier to a first sample stream, the second carrier to a second sample stream, and a third carrier to a third sample stream;

wherein the accepting step comprises accepting the first, second, and third sample streams at first and second demodulating fingers; and

wherein the step of operating the controller comprises communicating the sample stream selection commands so that the first and second demodulating finger select the first sample stream for the first demodulating finger and the first sample stream for the second demodulating finger.

29 (currently amended). The method of claim 25 wherein the accepting step comprises receiving a first carrier with a plurality of multipath delays, including a first, second, and third delay;

further comprising:

converting the first carrier with the plurality of delays to a first sample stream with a plurality of delays, including a first, second, and third delay;

wherein the accepting step comprises accepting the first sample stream with the plurality of delays at first, second, and third demodulating fingers; and

wherein the step of operating the controller comprises communicating the sample stream selection commands so that the first demodulating finger selects the first sample stream first delay, the second demodulating finger selects the first sample stream second delay, and the third demodulating finger selects the first sample stream third delay.